

CLAIMS

1. A transgenic mouse whose genome comprises
a transgene comprising a transcriptional control region operably linked to a
cDNA encoding calreticulin (CRT) wherein said control region comprises a promoter
5 wherein expression of calreticulin in the vascular smooth muscle cells results in
hemangioma formation.

2. The transgenic mouse according to claim 1 wherein the promoter is
SM22 α promoter.

3. A transgene comprising a transcriptional control region operably linked
10 to a cDNA encoding calreticulin wherein said control region comprises a SM22 α
promoter.

4. A method for producing a transgenic mouse whose genome comprises
CRT comprising:

15 introducing into a fertilized mouse egg a transgene comprising a transcriptional
control region operably linked to a cDNA encoding CRT wherein said control region
comprises a promoter;

transplanting the injected egg in a foster parent female mouse; and
selecting a mouse derived from an injected egg whose genome comprises
CRT.

20 5. The method according to claim 4 wherein the promoter comprises
SM22 α promoter.

6. A method for screening compounds that inhibit vascular tumor formation
in a transgenic mouse comprising

25 providing a transgenic mouse whose genome comprises a transgene
comprising a transcriptional control region operably linked to a cDNA encoding
calreticulin (CRT);

allowing CRT to be expressed in said transgenic mouse
administering a compound to said mouse; and
determining whether said compound reduces hemangioma formation.

30 7. A compound isolated according to the method of claim 6.

8. A method of testing the therapeutic activity of a pharmacological agent on Kaposiform hemangioendothelioma comprising administering an effective amount of said pharmacological agent to the mouse of claim 1 and evaluating said agent's effect on hemangioma formation of said mouse.

5 9. A compound isolated according to the method of claim 8.

10. A method of inhibiting hemangioma formation comprising administering an effective amount of a matrix metalloproteinase inhibitor to a patient in need of such treatment.

10 11. A method of inhibiting hemangioma comprising administering to an individual in need of such treatment an effective amount of virally-administered small interference RNA (siRNA) corresponding to a portion of CRT mRNA, wherein expression of the siRNA decreases the level of CRT.